

WHAT IS CLAIMED IS:

1. An optical connector implemented and fixed to a wiring substrate, comprising:
  - a surface-implemented type optical element; and
  - a first housing having a first housing body portion having:
    - an element storing depression, which can store and hold the optical element so as to surface-implement the optical element on a main surface of the wiring substrate,
    - a guide sleeve portion for guiding a fiber so as to optically connect to the optical element, and
    - a first mounting portion for mounting the first housing body portion onto the main surface of the wiring substrate,
    - wherein the first mounting portion is arranged such that a position for mounting the first housing body portion can be freely adjusted in the planer direction of the wiring substrate.
2. The optical connector according to claim 1, wherein the first mounting portion is arranged such that the first mounting portion can be fixed to the wiring substrate side by soldering or with resin.
3. The optical connector according to claim 1, wherein the first mounting portion has a fixing pin, which can be movably inserted to a through-hole for fixing the first housing formed on the wiring substrate side, and the fixing pin is arranged such that the fixing pin can be fixed to the wiring substrate side by soldering or with resin.
4. The optical connector according to claim 1, wherein the first mounting portion is a substrate fixing lock portion having:
  - an extending lock piece, which can be movably inserted to an associating hole for fixing the first housing formed on the wiring substrate side, and
  - a lock projection, which projects at the pointed end of the extending lock piece and which can associate with the associating hole therethrough.
5. The optical connector according to claim 1, further comprising a second housing, mounted and fixed to the wiring substrate by covering the first housing, for guiding the optical fiber toward the guide sleeve portion by fitting, and for connecting the housing of an optical connector of the other party holding the optical fiber to the second housing.
6. The optical connector according to claim 5, wherein the second housing has a lock portion, which can be associated with the optical connector side of the other party.

7. The optical connector according to claim 5, wherein the second housing has a screwed portion, which can be screwed and fixed to the wiring substrate.

8. The optical connector according to claim 5, wherein the first housing contains a material having a higher conductivity than that of the second housing, and at least a part thereof is exposed to the outside of the second housing.

9. The optical connector according to claim 1, wherein the first housing contains a material, which does not melt at a processing temperature for surface-implementing the optical element thereto.

10. An optical connector storing an optical element and being implemented on a main surface of a wiring substrate, the optical connector comprising:

a surface-implemented type optical element having an electrode portion on a surface of an element body portion; and

a first housing having a housing body portion having:

an element storing depression, which stores and holds the optical element so as to surface-implement the optical element to the wiring substrate,

a guide sleeve portion for guiding an optical fiber so as to optically connect to the optical element, and

a mounting portion for mounting and fixing the housing body portion to the wiring substrate by providing the bottom part of the housing body portion tightly in contact with the main surface of the wiring substrate,

wherein an element forcing portion for forcing the optical element toward the main surface of the wiring substrate is provided in the housing body portion.

11. The optical connector according to claim 10, wherein the mounting portion is a mounting lock portion, which can lockably associate with an associating hole by being inserted from the main surface side of the wiring substrate to the associating hole formed on the wiring substrate side.

12. The optical connector according to claim 10, wherein the element forcing portion is a tongue-shaped elastic forcing piece, which is obtained by providing a substantial U-shaped slit on the ceiling part of the housing body portion.

13. The optical connector according to claim 10, further comprising a second housing, mounted and fixed to the wiring substrate by covering the first housing, for guiding the optical fiber toward the guide sleeve portion by fitting, and for connecting the housing of an optical connector of the other party holding the optical fiber to the second housing.

14. The optical connector according to claim 10, wherein the second housing has a lock portion, which can be latched with the optical connector of the other party.